



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/484,057	01/18/2000	Keun-Ho Shin	P55955	9201

8439 7590 03/25/2003

ROBERT E. BUSHNELL  
1522 K STREET NW  
SUITE 300  
WASHINGTON, DC 200051202

EXAMINER

PAYNE, DAVID C

ART UNIT	PAPER NUMBER
----------	--------------

2633

8

DATE MAILED: 03/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/484,057

Applicant(s)

SHIN, KEUN-HO

Examiner

David C. Payne

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5,7 and 9-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-21 is/are allowed.
- 6) ☒ Claim(s) 1,4,5,9-11 and 13 is/are rejected.
- 7) ☒ Claim(s) 2,3,7,12, 14-16,22 and 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other:

Art Unit: 2633

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "microprocessor" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to because element (320, 330, 340) shown in Figure 3 are not widely recognized engineering symbols, applicant is required to provide suitable legends under 37 C.F.R. 1.83 (a) and 1.84 (g). Correction is required. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1, 4, 5, 9, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Johnson et al. US 5,481,183 (Johnson).

Re claim 1,

Art Unit: 2633

Johnson disclosed an input unit comprising a lensed fiber (Figure 1, col./line: 3/1-25) receiving a wavelength division multiplexed (WDM) optical signal via an optical transmission medium and producing a collimated beam of optical signals, said input unit further comprising a concave lens (10) receiving said collimated beam and outputting a plurality of optical signals that have a contiguous range of incidence angles according to the wavelengths each of said plurality of optical signals; and

a filter for receiving said plurality of optical signals from the input unit () Johnson does not disclose that the filter separate the wavelengths. However, it would have been obvious to one of ordinary skill in the art at the time of invention the combination of lens and filter in Johnson operates the same as the lens (310) and filter of figure 3 in the applicants claimed invention. One is motivated as such for the following reasons. First, the examiner contends that it is the lens in combination with the filter in the applicant's invention that in fact separates wavelengths. The lens (310) fans out the wavelengths where each wavelength impinges on the first surface of the filter at different angles (e.g., specification p. 8 lines 15-18.) the filter in combination "separate" out the wavelengths. This is the same as Johnson disclosed where the lenses 9 and 10 (figure 1) fan out the beam to the etalon filter where light transmission for particular wavelengths is dependent on the angle at which the light illuminates the front surface of the etalon." (e.g., col./line: 3/1-25).

Re claim 4,

Johnson does not disclose converting the signal from the detector array into electrical signals. However it would have been obvious to one of ordinary skill in the art to claim as such. One is motivated as such since Johnson disclosed a video camera (col./line: 4/5-15) that is use as a spectrum analyzer. Video cameras are known to produce electrical signals particularly if needed to drive electronics for a spectrum analyzer.

Re claims 5, 9 and 13

Johnson disclosed a pixel array (16) is placed to permit illumination of the array by the portion of

Art Unit: 2633

light transmitted through the etalon (e.g., col./line: 4/5-15) at a continuous range of incidence angles (.36 to -.36 degrees, col./line: 3/25-27). Johnson disclosed the range of wavelengths from -36 to +36 degrees which includes 10 degrees. Both the video camera (17) and monitor (19) as shown in Figure 1 are widely known to include microprocessors.

Re claim 11, Johnson disclosed a Fabry-Perot etalon filter (Figure 9 #13).

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. US

5,481,183 (Johnson) in view of Shimojoh et al. US 6,344,914 B1 (Shimojoh).

Johnson does not disclose an amplifier as claimed. Shimojoh disclosed amplifiers following filters (figure 17) in an optical system. It would have been obvious to one of ordinary skill add the amplifiers of Shimojoh to the Johnson system to obtain the claimed invention. One is motivated as such since a loss of signal commonly occurs after filtering which necessitates the use of amplifiers to strengthen the signal downstream.

#### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-5, 7 and 9 – 23 have been considered but are moot in view of the new ground(s) of rejection.
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Payne whose telephone number is (703) 306-0004. The examiner can normally be reached on M-F, 7a-4p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703) 305-4729. The fax phone numbers for the organization where this

Art Unit: 2633

application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

*Allowable Subject Matter*

8. Claims 17-21 are allowed.
9. Claims 2, 3, 7, 12, 13-16, 22 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Conclusion*

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

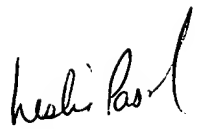
Application/Control Number: 09/484,057

Page 6

Art Unit: 2633

dcp

March 24, 2003

  
LESLIE PASCAL  
PRIMARY EXAMINER